This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of delivering an occlusion element, comprising the steps of:

providing an occlusion element which is coupled to a delivery element with a dissolvable material, the dissolvable material being dissolvable with a fluid, the dissolvable material forming a dissolvable connection between the delivery element and the occlusion element;

advancing the occlusion element through a patient's vascular system with the occlusion element coupled to the delivery element with at least the dissolvable connection; and

dissolving the dissolvable material thereby releasing the occlusion element from the dissolvable connection with the delivery element, wherein the dissolving step is carried out with the dissolvable material being dissolved faster by the fluid as compared to other fluids contacting the material during the advancing step.

2. Canceled

3. (Original) The method of claim 1, wherein:

the providing step is carried out with the dissolvable material dissolving faster at a selected pH as compared to a pH of other fluids which the material contacts during the advancing step; and

the dissolving step is carried out by delivering a fluid having the selected pH to dissolve the dissolvable material.

4. (Original) The method of claim 1, wherein:

the dissolving step is carried out with the dissolvable material and fluid being a solute and solvent.

5. (Original) The method of claim 1, wherein:

the dissolving step is carried out by delivering a fluid to the dissolvable material, the fluid being an acid..

6. (Original) The method of claim 1, wherein:

the dissolving step is carried out by delivering a fluid to the dissolvable material, the fluid being a base.

7. (Original) The method of claim 5, wherein the dissolvable material includes a material selected from the group consisting of zinc and iron.

8. (Currently amended) A method of delivering an occlusion element, comprising the steps of:

providing an occlusion element which is coupled to a delivery element with a dissolvable material, the dissolvable material being dissolvable with a fluid, the dissolvable material forming a dissolvable connection between the delivery element and the occlusion element;

advancing the occlusion element through a patient's vascular system with the occlusion element coupled to the delivery element with at least the dissolvable connection; and

dissolving the dissolvable material thereby releasing the occlusion element from the dissolvable connection with the delivery element, [The method of claim 1,] wherein the dissolvable material is a polymer.

9. (Currently amended) The method of claim [9] 8, wherein the dissolvable material is a natural polymer.

10. (Currently amended) The method of claim [9] 8, wherein the dissolvable material is an alginate.

11. (Currently amended) The method of claim [9] 8, wherein the dissolvable material is a cross-linked polymer.

12. (Original) The method of claim 11, wherein the dissolving step is carried out by delivering a fluid including a cation which dissolves the cross-linked polymer.

13. (Original) The method of claim 8, wherein the polymer is in the form of polymer layers bonded together.

14. (Original) The method of claim 13, wherein the polymer is an acrylic polymer.

15. (Original) The method of claim 15, wherein the polymer is a methacrylate polymer.

16. (Original) The method of claim 13, wherein the dissolving step is carried out by delivering a fluid having a pH different than blood.

17. (Original) The method of claim 13, wherein the dissolving step is carried out by using a fluid having a salinity different than blood.

18. (Original) The method of claim 17, wherein the dissolving step is carried out with the fluid having a pH of 4-6.5.

19. (Original) The method of claim 17, wherein the dissolving step is carried out with the fluid having a pH of 8-95.

20. (Original) The method of claim 17, wherein the dissolving step is carried out with the fluid having a pH of less than 7.0.

21. (Original) The method of claim 17, wherein the dissolving step is carried out with the fluid having a pH of greater than 7.4.

22. (Currently amended) A method of delivering an occlusion element, comprising the steps of:

providing an occlusion element which is coupled to a delivery element with a dissolvable material, the dissolvable material being dissolvable with a fluid, the dissolvable material forming a dissolvable connection between the delivery element and the occlusion element;

advancing the occlusion element through a patient's vascular system with the occlusion element coupled to the delivery element with at least the dissolvable connection; and

dissolving the dissolvable material thereby releasing the occlusion element from the dissolvable connection with the delivery element; and [The method of claim 1, further comprising the step of:]

changing a temperature of the dissolvable material during the dissolving step.

23. (Original) The method of claim 22, wherein:

the temperature changing step is carried out by delivering the fluid at a temperature which changes the temperature of the dissolvable material.

24. (Original) The method of claim 22, wherein:

the temperature changing step is carried out by directly heating the dissolvable bond.

25. (Original) The method of claim 24, wherein:

the temperature changing step is carried out by using resistive heating.

26. (Original) The method of claim 1, wherein:

the dissolving step is carried out by delivering the fluid to the material to dissolve the dissolvable material.

27. (Original) The method of claim 26, wherein:

the dissolving step is carried out with the fluid being delivered through the delivery element.

28. (Original) The method of claim 27, wherein:

the dissolving step is carried out with a tube positioned in the delivery element, the tube having a lumen, the tube and delivery element defining a space therebetween, the fluid being delivered through one of the lumen and the space and the fluid being withdrawn through the other of the lumen and the space.

29. (Original) The method of claim 1, wherein:

the providing step is carried out with the occlusion element forming coils.

30. (Original) The method of claim 1, wherein:

the providing step is carried out with the dissolvable material having a cavity.

31. (Original) The method of claim 30, wherein:

the providing step is carried out with the cavity being a throughhole.

32. (Original) The method of claim 1, further comprising the step of:

positioning a blocking element to impede fluid contact with a least a protected portion of the dissolvable material, the blocking element being movable to a position spaced apart from the protected portion of the dissolvable material.

33. (Original) The method of claim 32, wherein:

the blocking element is positioned in a cavity in the dissolvable material.

34. (Original) The method of claim 33, wherein:

the providing step is carried out with the blocking element being a tube; and the method further comprising the step of retracting the tube to expose at least part of the dissolvable material.

35. (Original) The method of claim 33, wherein:

the providing step is carried out with the blocking element being a tube; and

the dissolving step being carried out with the fluid passing through the tube.

36. (Currently amended) A method of delivering an occlusion element, comprising the steps of:

providing an occlusion element which is coupled to a delivery element with a dissolvable material, the dissolvable material being dissolvable with a fluid, the dissolvable material forming a dissolvable connection between the delivery element and the occlusion element, [The method of claim 1, wherein:] the providing step [is] being carried out with a flexible sheath extending over the dissolvable material, the flexible sheath being attached to the delivery element[.];

advancing the occlusion element through a patient's vascular system with the occlusion element coupled to the delivery element with at least the dissolvable connection; and

dissolving the dissolvable material thereby releasing the occlusion element from the dissolvable connection with the delivery element.

37. (Original) The method of claim 1, wherein:

the providing step is carried out with the occlusion element having a portion embedded in the dissolvable material.

38. (Original) The method of claim 37, wherein:

the providing step is carried out with the embedded portion being embedded in the dissolvable material in an expanded position, the embedded portion being naturally biased toward a collapsed position; and

the dissolving step is carried out so that the portion of the occlusion element is no longer embedded in the material thereby permitting the portion to move toward the collapsed position.

39. (Original) The method of claim 37, wherein:

the providing step is carried out with the portion embedded in the material including a plurality of filaments.

40. (Original) The method of claim 37, wherein:

the providing step is carried out with the portion embedded in the dissolvable material being a coil.

41. (Original) The method of claim 1, wherein:

the providing step is carried out with the occlusion element having a plurality of flexible fibers embedded in the dissolvable material.

42. (Original) The method of claim 1, wherein:

the providing step is carried out with the portion embedded in the material including a ball.

43. (Original) The method of claim 1, wherein:

the providing step is carried out with the portion embedded in the material including a cage.

44. (Original) The method of claim 1, wherein:

the providing step is carried out with a flexible sheath covering at least a portion of the dissolvable material.

45. (Original) The method of claim 44, wherein:

the providing step is carried out with the sheath having openings therein.

46. (Original) The method of claim 45, wherein:

the providing step is carried out with the delivery element having a fluid distributing portion with openings for distributing the fluid;

the dissolving step being carried out to deliver the fluid through the openings in the distributing portion to dissolve the material.

47. (Original) The method of claim 46, wherein:

the providing step is carried out with the distributing portion being conical.

48. (Original) The method of claim 1, further comprising the step of:

moving the delivery element relative to the occlusion element after the dissolving step to fully release the occlusion element from the delivery element.

49. (Original) The method of claim 1, wherein:

the dissolving step fully releases the occlusion element from the delivery element.

50. (Original) The method of claim 1, wherein:

the providing step is carried out with the occlusion element having a blocking portion which isolates the material from the patient's blood;

the advancing step being carried out so that the blocking portion isolates the material from the patient's blood during the advancing step.

51. (Original) The method of claim 50, wherein:

the providing step is carried out with the blocking portion being a plug of material.

52. (Original) The method of claim 51, wherein:

the providing step is carried out with the plug of material being solder.

53. (Original) The method of claim 50, wherein:

the providing step is carried out with the blocking portion being a disc.

54. (Original) The method of claim 1, wherein:

the dissolving step is carried out with the fluid being a fluid selected from the group consisting of water, saline and the patient's own blood.

55. (Original) The method of claim 1, wherein:

the providing step is carried out with the material being selected from the group consisting of sugar, salt, mannitol or a combination thereof.

56. (Currently amended) A method of delivering an occlusion element, comprising the steps of:

providing an occlusion element which is coupled to a delivery element with a dissolvable material, the dissolvable material being dissolvable with a fluid, the dissolvable material forming a dissolvable connection between the delivery element and the occlusion element, [The method of claim 1, wherein:] the providing step [is] being carried out with the delivery element having a plurality of occlusion elements; [and]

advancing the occlusion element through a patient's vascular system with the occlusion element coupled to the delivery element with at least the dissolvable connection; and

dissolving the dissolvable material thereby releasing the occlusion element from the dissolvable connection with the delivery element, the dissolving step [is] being carried out a number of times to sequentially release the plurality of occlusion elements.

57. (Original) The method of claim 56, wherein:

the providing step is carried out with the delivery element including a tube in which the plurality of occlusion elements is positioned;

the dissolving step being carried out by moving the tube relative to the occlusion elements to expose the dissolvable material to the fluid.

58. (Original) The method of claim 57, wherein;

the providing step is carried out with the tube having openings therein through which the fluid passes to contact the dissolvable material.

59. (Original) The method of claim 58, wherein:

the providing step is carried out with the delivery element having an outer tube positioned around the tube; and

the dissolving step is carried out by delivering the fluid through a lumen positioned between the tube and outer tube.

60. (Original) The method of claim 59, wherein:

the dissolving step is carried out by withdrawing the fluid and dissolved parts of the dissolvable material through another lumen between the tube and outer tube.

61. (Original) The method of claim 55, wherein:

the dissolving step is carried out by using a first fluid to dissolve one of the dissolvable connections and a second fluid, different than the first fluid, to dissolve another of the dissolvable connections.

62. (Currently amended) A method of delivering an occlusion element, comprising the steps of:

providing an occlusion element which is coupled to a delivery element with a dissolvable material, the dissolvable material being dissolvable with a fluid, the dissolvable material forming a dissolvable connection between the delivery element and the occlusion element;

advancing the occlusion element through a patient's vascular system with the occlusion element coupled to the delivery element with at least the dissolvable connection; and

dissolving the dissolvable material thereby releasing the occlusion element from the dissolvable connection with the delivery element; and

[The method of claim 1, further comprising the step of:]

detecting whether the occlusion element has been released from the delivery element.

63. (Original) The method of claim 62, wherein:

the detecting step is carried out by applying energy to the delivery element and detecting a change in a parameter thereby indicating release of the occlusion element.

64. (Original) The method of claim 63, wherein:

the detecting step is carried out by applying RF energy.

65. (Original) The method of claim 64, wherein:

the detecting step is carried out with the parameter being the standing wave ratio.

66. Currently canceled

Claims 67-104 Canceled

105. (Original) A method of delivering a medical device, comprising the steps of:

providing a medical device which is coupled to a delivery element with a dissolvable material, the dissolvable material being dissolvable with a fluid, the dissolvable material forming a dissolvable bond between the delivery element and the medical device;

advancing the medical device into a patient with the medical device coupled to the delivery element; and

dissolving the dissolvable material thereby releasing the medical device from the delivery element.